

SX7CVTT

HCMOS SURFACE MOUNT VCTCXO

FEATURES

7.0 x 5.0 x 1.9 mm

- Miniature package
- High precision for -10° to +70°C , ± 0.05 ppm
- -40° to +85°C , ± 0.20 ppm
- Applications: Femtocell, Base stations, Wireless communications, ...



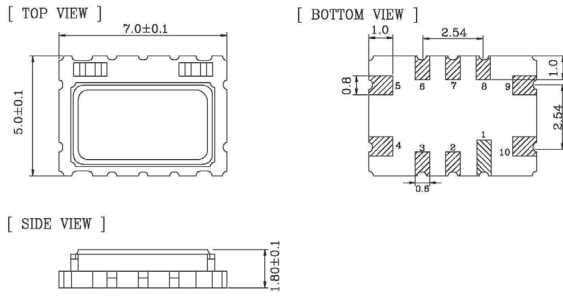
Item	Specification																																								
Frequency Range	5.0 MHz ~ 52.0 MHz																																								
Standard Frequency	10.000 ; 12.800 ; 16.384 ; 19.200 ; 19.440 ; 20.000 ; 25.000 ; 26.000																																								
Output Logic	CMOS																																								
Supply Voltage Vdd (see options)	+3.3 V ±5% +5.0 V ±5%																																								
Supply Current Idd	6.0 mA max.																																								
Frequency Tolerance	±2.0 ppm max. at 25°C ±2°C (one hour after reflow)																																								
Frequency Stability vs Temperature (see options)	<table border="1"> <thead> <tr> <th></th> <th>±0.05 ppm</th> <th>±0.10 ppm</th> <th>±0.14 ppm</th> <th>±0.20 ppm</th> <th>±0.28 ppm</th> <th>±0.37 ppm</th> <th>±0.5 ppm</th> </tr> </thead> <tbody> <tr> <td>0° to +55°C</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> </tr> <tr> <td>-10° to +60°C</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> </tr> <tr> <td>-10° to +70°C</td> <td>◇</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> </tr> <tr> <td>-40° to +85°C</td> <td>x</td> <td>x</td> <td>x</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> </tr> </tbody> </table> <p>o = available ◇ = please contact us x = not available</p>		±0.05 ppm	±0.10 ppm	±0.14 ppm	±0.20 ppm	±0.28 ppm	±0.37 ppm	±0.5 ppm	0° to +55°C	o	o	o	o	o	o	o	-10° to +60°C	o	o	o	o	o	o	o	-10° to +70°C	◇	o	o	o	o	o	o	-40° to +85°C	x	x	x	o	o	o	o
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Frequency Stability vs Aging	±1.0 ppm max. per year at 25°C																																								
Frequency Stability vs Voltage Change	±0.05 ppm max., for a ±5% input voltage change																																								
Frequency Stability vs Load Change	±0.05 ppm max., for a ±10% load condition change																																								
Output Level	VOH ≥ 0.9 Vdd VOL ≤ 0.1 Vdd																																								
Output Load	15 pF																																								
Symmetry	45 / 55%																																								
Rise Time / Fall Time Fr / Ff	10 ns max.																																								
Start-up Time	2.0 ms max.																																								
Tri-state function (Only possible for A-version package)	pin #8 = high or open pin#5 ==> oscillation pin #8 = low pin#5 ==> high impedance																																								
Phase Noise	<table border="1"> <thead> <tr> <th>Offset / dBc / Hz</th> <th>100 Hz</th> <th>1 kHz</th> <th>10 kHz</th> </tr> </thead> <tbody> <tr> <td>(typical)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>12.800 MHz</td> <td>-130 dBc / Hz</td> <td>-145 dBc / Hz</td> <td>-154 dBc / Hz</td> </tr> </tbody> </table>	Offset / dBc / Hz	100 Hz	1 kHz	10 kHz	(typical)				12.800 MHz	-130 dBc / Hz	-145 dBc / Hz	-154 dBc / Hz																												
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Voltage Control Function	Control Voltage Range Center voltage +1.5 V, range ±1.0V Frequency Pulling Range ±5 ppm min. Linearity 10 % max. Slope Polarity Positive Input Impedance 100 kΩ min.																																								
Packing Unit	1000 pcs / reel																																								
Soldering Condition	260°C, 10 sec x2 max																																								

OPTIONS & ORDERING INFORMATION

SX7CVTT	- MHz
Supply Voltage *	Operating Temp. *	Temperature Stability *	Tri-state Function *	Package type	Pulling	Frequency in MHz
33 = +3.3V	C = 0° / +55°C	0.05 = ±0.05 ppm	E8 = Tri-state, pin #8	A = A-version	05 = ±5 ppm min.	Please specify the frequency in MHz
50 = +5.0V	D = -10° / +60°C	0.10 = ±0.10 ppm	F = No Tri-state	B = B-version		
	F = -10° / +70°C	0.14 = ±0.14 ppm				
	K = -40° / +85°C	0.20 = ±0.20 ppm				
		0.28 = ±0.28 ppm				
		0.37 = ±0.37 ppm				
		0.50 = ±0.50 ppm				

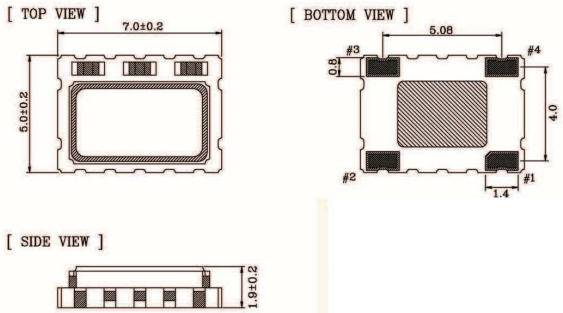
(*). Note : Not all combinations are possible, please consult us

OUTLINE DIMENSIONS



A-Version

Pin Connections	#1 : NC	#2 : NC	#3 : NC	#4 : GND	#5 : Output
	#6 : NC	#7 : NC	#8 : E/D	#9 : Vdd	#10 : Control voltage



B-Version

Pin Connections	#1 : Control voltage	#2 : GND	#3 : Output	#4 : Vdd
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